

Amendments to the Claims

1. (currently amended): A method of selecting an air interface protocol for a mobile station to use, wherein the mobile station includes (a) logic to communicate according to an 802.xx wireless local area network air interface protocol (WLAN logic), (b) logic to communicate according to a wireless wide area network air interface protocol (WWAN logic), and (c) logic to select one of the WLAN logic and the WWAN logic to communicate on an air interface, the method comprising:

the mobile station detecting RF energy in a WLAN 802.xx spectrum;

in response to the energy detection step, ~~determining whether there is~~ identifying a an 802.xx WLAN that can service the mobile station by performing a passive scanning operation in which the mobile station searches for a beacon frame broadcast by ~~an~~ the 802.xx WLAN; and

subsequent to identifying the 802.xx WLAN that can service the mobile station, if there is an 802.xx WLAN that can service the mobile station, the mobile station selecting the WLAN logic.

2. (cancelled)

3. (currently amended): A method of selecting an air interface protocol for a mobile station to use, wherein the mobile station includes (a) logic to communicate according to a wireless local area network air interface protocol (WLAN logic), (b) logic to communicate according to a wireless wide area network air interface protocol (WWAN logic), and (c) logic to select one of the WLAN logic and the WWAN logic to communicate on an air interface, the method comprising:

the mobile station detecting RF energy in an 802.xx WLAN spectrum;

in response to the energy detection step, ~~determining whether there is~~ identifying a an 802.xx WLAN that can service the mobile station by performing

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an active scanning operation in which the mobile station transmits probe request frames and waits for probe responses from the an 802.xx WLAN; and
subsequent to identifying the 802.xx WLAN that can service the mobile station, ~~if there is an 802.xx WLAN that can service the mobile station~~, the mobile station selecting the WLAN logic.

4. (original): The method of claim 1 wherein the beacon frame includes a SSID identifying an access point of the 802.xx WLAN.

5. (original): The method of claim 3 wherein the probe response includes a SSID identifying an access point of the 802.xx WLAN.

6. (currently amended): The method of claim 4 wherein the mobile station compares the SSID within the beacon frame with a set of SSIDs to determine if the SSID within the beacon frame is within the set of SSIDs and if so determining that the 802.xx WLAN sensed is a valid ~~802.xx WLAN~~ to service the mobile station.

7. (currently amended): The method of claim 5 wherein the mobile station compares the SSID within the probe response with a set of SSIDs to determine if the SSID within the probe response is within the set of SSIDs and if so determining that the 802.xx WLAN sensed is a valid ~~802.xx WLAN~~ to service the mobile station.

8. (original): The method of claim 6 wherein the mobile station and the 802.xx WLAN authenticate the identity of each other.

9. (original): The method of claim 7 wherein the mobile station and the 802.xx WLAN authenticate the identity of each other.

10. (previously presented): The method of claim 1 wherein the WWAN has information identifying the areas in which WLANs operate and wherein the

WWAN provisions the mobile station with at least a subset of such information, and wherein the mobile station uses such area-identifying information to determine whether to perform the RF energy detection operation.

11. (original): The method of claim 10 wherein the area-identifying information is cell ids and wherein the mobile station compares the cell id information which it is operating with the provisioned cell ids.

12. (original): The method of claim 10 wherein the area-identifying information is geographical positioning satellite (GPS) information and wherein the mobile station determines its GPS coordinates and compares it against the provisioned GPS information.

13. (original): The method of claim 1 wherein the mobile station compares the RF energy value with a threshold value and wherein the mobile station detects the RF energy of the WWAN and compares said RF energy of the WWAN with a predetermined value and wherein the comparisons of the RF energy values with corresponding thresholds is used by the mobile station in selecting whether to communicate with the 802.xx WLAN and the WWAN.

14. (previously presented): The method of claim 1 wherein the WWAN has information identifying the areas in which WLANs operate and wherein the WWAN provisions the mobile station with at least a subset of such information, and wherein the mobile station uses such area-identifying information to determine whether to perform the RF energy detection operation.

15. (previously presented): The method of claim 10 wherein the area-identifying information includes information identifying WLANs other than that used by a service plan of the mobile station.

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16. (previously presented): The method of claim 15 wherein the information identifying WLANs includes information identifying WLANs of enterprises accepting service of the mobile station.
17. (previously presented): The method of claim 10 wherein the mobile station is provisioned with the area information via SMS messages from the WWAN.
18. (previously presented): The method of claim 10 wherein the provisioning of area information in response to the multimode mobile station causing location update messages to a HLR of the WWAN.
19. (currently amended): A multimode mobile station, comprising
first air interface logic to communicate according to an 802.xx wireless local area network air interface protocol;
second air interface logic to communicate according to a wireless wide area network air interface protocol;
logic to sense RF energy in an the 802.xx spectrum;
logic, responsive to the sensing logic, to ~~determine whether there is an~~ identify a 802.xx WLAN that can service the multimode mobile station by performing a passive scanning operation in which the mobile station searches for a beacon frame broadcast by the an 802.xx WLAN; and
logic, responsive to the identifying ~~determining~~ logic, to select the first air interface logic if ~~there is an 802.xx WLAN that can service the multimode mobile station.~~
20. (cancelled)
21. (cancelled)
22. (currently amended): A multimode mobile station, comprising
first air interface logic to communicate according to an 802.xx wireless local area network air interface protocol;

second air interface logic to communicate according to a wireless wide area network air interface protocol;

logic to sense RF energy in an the 802.xx spectrum;

logic, responsive to the sensing logic, to ~~determine whether there is an~~ identify a 802.xx WLAN that can service the multimode mobile station by performing an active scanning operation in which the mobile station transmits probe request frames and waits for probe responses from the WLAN; and

logic, responsive to the identifying ~~determining~~ logic, to select the first air interface logic ~~if there is a WLAN that can service the multimode mobile station.~~

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